TYPE 2 DIABETES TREATMENT APPROACH PRINCIPLES

Optimal treatment for type 2 diabetes incorporates a multiple risk factor approach including self-management counseling, medical nutrition therapy, physical activity, weight reduction if appropriate, and the use of oral glucose lowering agents or insulin if necessary. Careful consideration needs to be given to ameliorating associated cardiovascular risk factors such as hypertension, smoking, and dyslipidemia.

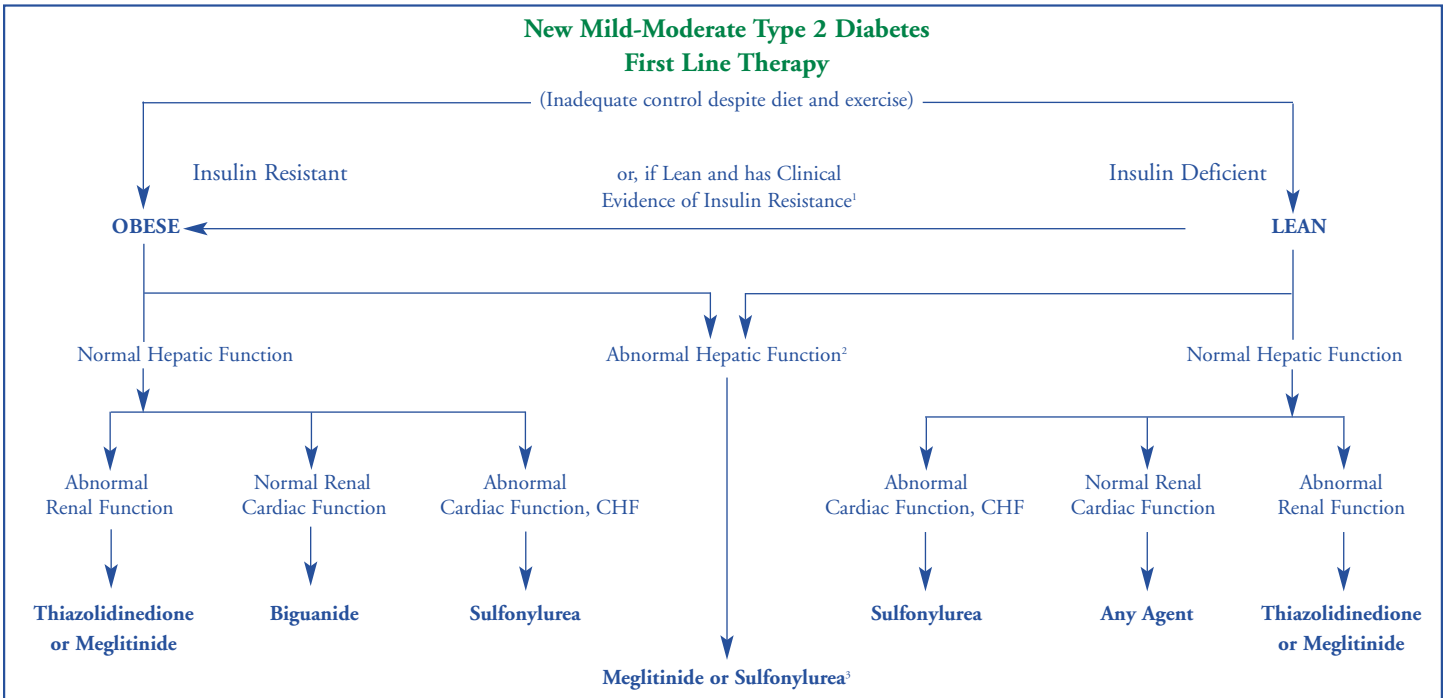
When setting treatment goals for individuals with type 2 diabetes, it is important to assess the risk for severe hypoglycemia and consider the person's ability to comprehend the regimen. Consider as well other factors that may optimize or minimize the treatment's benefit including: advanced age, ESRD, advanced cardiovascular or cerebrovascular disease, or other co-morbidities that may lead to reduced life span.

Achievement of normal or near normal blood glucose levels requires education in self-management techniques including:

- Self blood glucose monitoring
- Recognition, treatment, and prevention of hypoglycemia
- Prevention, early detection, and treatment of chronic complications
- Medical nutrition therapy
- Regular physical activity
- Reinforcement and continuing education[1]

For individuals who have been unable to achieve optimal blood glucose control through dietary changes and regular physical activity, the use of a single antidiabetic oral agent is recommended.[2] *Sulfonylureas, metformin, meglitinides, alpha glucosidase inhibitors, and thiazolidinediones* are all approved by the FDA for monotherapy. The choice of a particular agent must depend, however, on the individual's characteristics.

The following is a guideline to assist in the choice of a pharmaceutical agent. Care must be individualized based on patient characteristics and physician preferences. This suggested treatment approach reflects current thinking; however, changes will continue to be made in this recommended algorithm. A chart comparing the attributes of the various oral antidiabetic medications is located on the reverse side of the insulin page.



[1] Clinical evidence of insulin resistance includes the following: a pattern of high triglyceride and low HDL levels, the presence of hypertension, and an increased waist to hip ratio.
[2] Resolution of abnormal liver function tests following improved glucose control may prompt reevaluation of therapeutic choices.
[3] Certain shorter acting sulfonylureas such as glipizide may also be appropriate.

(continued on reverse)

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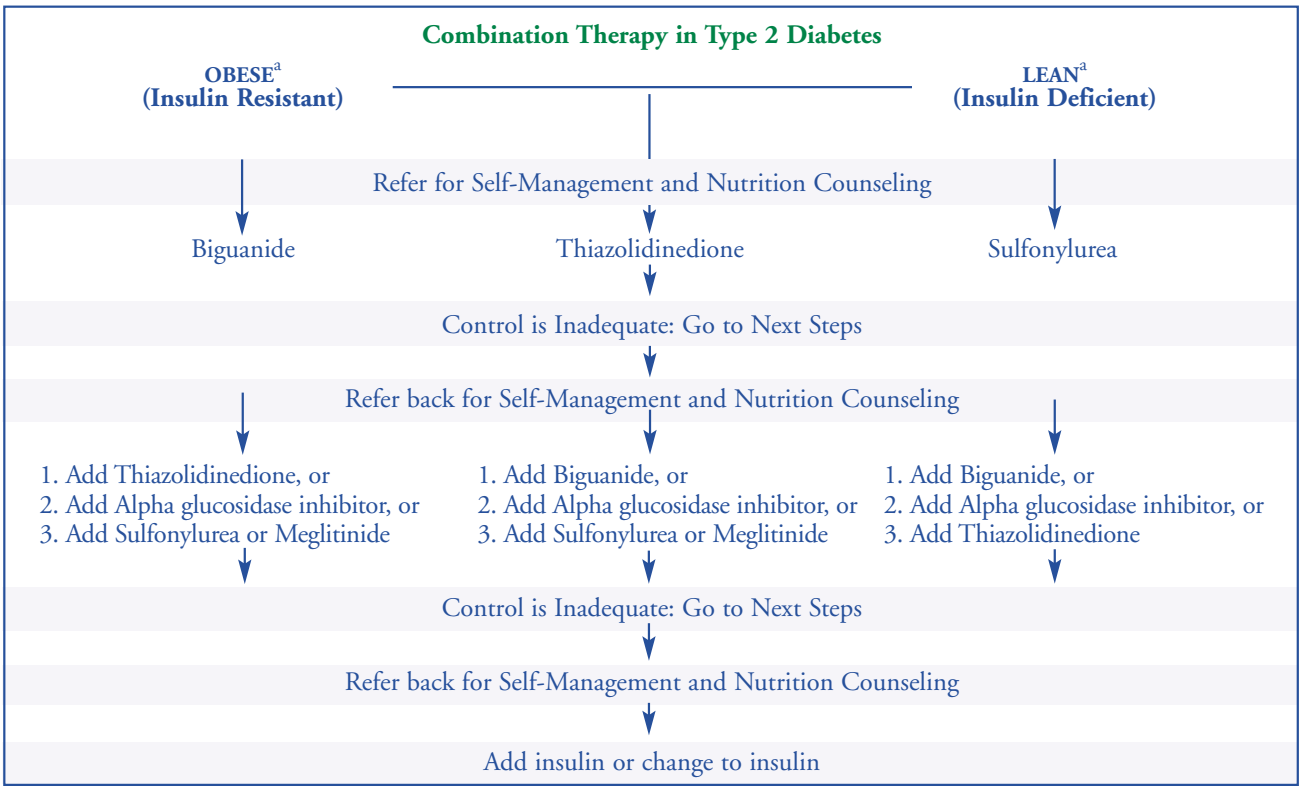
In case of monotherapy failure, combination therapies may be attempted. If, despite the use of oral agent combination therapy glycemic control is not achieved or maintained, insulin must be used, either alone or in combination with an indicated oral drug regimen. The total daily insulin doses range from 0.4-1.2 U/kg/day. For insulin resistant patients, doses of > 1.5 U/kg/day may be required.

Choice of specific agents should be based on self-monitoring of blood glucose (SMBG) profiles and physician preference. Remember to evaluate the patient's cardiac, renal, and hepatic function as appropriate for each oral agent. The choice of an additional agent depends on the patient's SMBG patterns and clinical scenario. For information comparing the oral antidiabetic agents, refer to the table on the reverse side of the insulin page.



[a]Obese = BMI > 30, Lean = BMI < 25

[1] Adapted from the *American Diabetes Association (Position Statement). Standards of Medical Care for Patients with Diabetes Mellitus. Diabetes Care 26 (Supplement 1): S 33-S50, 2003.*

[2] Appropriate diet and exercise should be maintained even if the diabetes is being managed pharmacologically.